

perpendicular ones are $\frac{MC}{NG}$ CG and $\frac{AD}{EF}$ CF. And if the force of the refracting Plane begins to act upon the Rays either in that Plane or at a certain distance from it on the one side, and ends at a certain distance from it on the other side, and in all places between those two Limits acts upon the Rays in Lines perpendicular to that refracting Plane, and the Actions upon the Rays at equal distances from the refracting Plane be equal, and at unequal ones either equal or unequal according to any rate whatever; that motion of the Ray which is Parallel to the refracting Plane will suffer no alteration by that force; and that motion which is perpendicular to it will be altered according to the rule of the foregoing Proposition. If therefore for the perpendicular Velocity of the emerging Ray CN you write $\frac{MC}{NG}$ CG as above, then the perpendicular Velocity of any other emerging Ray CE which was $\frac{AD}{EF}$ CF, will be equal to the square Root of $CDq + \frac{MCq}{NGq} CGq$. And by squaring these equals, and adding to them the Equals ADq and MCq --- CDq , and dividing the Summs by the Equals $CFq + EFq$ and $CGq + NGq$, you will have $\frac{ADq}{EFq}$ equal to $\frac{MCq}{NGq}$. Whence AD, the Sine of Incidence, is to EF the Sine of Refraction, as MC to NG, that is, in a given *ratio*. And this Demonstration being general, without determining what Light is, or by what kind of force it is refracted, or assuming any thing further than that the refracting Body acts upon the Rays in Lines perpendicular to its Surface; I take it to be a very convincing Argument of the full Truth of this Proposition.

So

So then, if the fraction of any *sc* given in all Cases Method in the *fo*

P R O

The Perfection of *g*

THE imper buted to therefore Mathem by the Conical S ken, I have insert will appear by the ral sorts of Rays 3 In the third ex fracting Angle of that Angle 31 de the Rays at their the Sine of this A When the Axis of and the Refraction Prism equal to tha with a Quadrant th (that is, those whic ed Image) made the Sun's altitude Angle which the e to be 44 deg. and ded to the Angle